

Claims;

1. An electrostatic image developing toner, which comprises a resin, a colorant, and a crystalline material, wherein the particle of said toner has a domain-matrix structure; the average of the horizontal FERE diameter of the part corresponding to said domain is from 200 to 900 nm; and the variation coefficient of said horizontal FERE diameter is 40 percent or less.
2. An electrostatic image developing toner, which comprises a resin, a colorant, and a crystalline material, wherein the particle of the toner has a domain-matrix structure and the ratio of toner particles having from 1 to 20 domains per said toner particle is at least 99 percent by number of the toner as whole.
3. An electrostatic image developing toner, which comprises a resin, a colorant, and a crystalline material, wherein the particle of said toner has a domain-matrix structure; the average of the shape factor of said domain is from 140 to 220; its variation coefficient is 35 percent or less; the ratio of domains having said shape factor in the range of 100 to 120 is 10 percent or less; and the ratio of

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domains having said shape factor of at least 240 is 15 percent or less.

4. An electrostatic image developing toner, which comprises a resin, a colorant, and a crystalline material, wherein the particle of said toner has a domain-matrix structure; the average of the shape factor of said domain is from 160 to 200; its variation coefficient is 35 percent or less; the ratio of domains having said shape factor in the range of 100 to 120 is 5 percent or less; and the ratio of domains having said shape factor of at least 240 is 10 percent or less.

5. An electrostatic image developing toner, which comprises a resin, a colorant, and a crystalline material, wherein the particle of said toner has a domain-matrix structure; the average of the area of a Voronoi polygon formed by the perpendicular bisecting line between the centers of gravity of domains adjacent to each other in said domain-matrix structure is from 20,000 to 120,000 nm<sup>2</sup>; and the variation coefficient of the area of said Voronoi polygon is 25 percent or less.

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6. An electrostatic image developing toner, which comprises a resin, a colorant, and a crystalline material, wherein the particle of said toner has a domain-matrix structure; the average of the area of a Voronoi polygon formed by the perpendicular bisecting line between the centers of gravity of domains adjacent to each other in said domain-matrix structure is from 40,000 to 100,000 nm<sup>2</sup>; and the variation coefficient of the area of said Voronoi polygon is 20 percent or less.

7. An electrostatic image developing toner, which comprises a resin, a colorant, and a crystalline material, wherein the particle of said toner has a domain-matrix structure; the average of the area of a Voronoi polygon formed by the perpendicular bisecting line between the centers of gravity of domains adjacent to each other in said domain-matrix structure is from 20,000 to 120,000 nm<sup>2</sup>; and 20 to 30 percent by number of domains having an area of at least 160,000 nm<sup>2</sup> are incorporated.

8. An electrostatic image developing toner, which comprises a resin, a colorant, and a crystalline material, wherein the particle of said toner has a domain-matrix

structure; the average of the area of a Voronoi polygon formed by the perpendicular bisecting line between the centers of gravity of the domains in the interior of a 1,000 nm radius circle having the center of gravity in the cross-section of said toner particle as the center is smaller than the average of the area of a Voronoi polygon formed by the perpendicular bisecting line between the centers of gravity of said domain in the exterior of said circle.

9. An electrostatic image developing toner, which comprises a resin, a colorant, and a crystalline material, wherein the particle of said toner is comprised of a domain-matrix structure, and of Voronoi polygons formed by the perpendicular bisecting line between the centers of gravity of domains adjacent to each other in said domain-matrix structure, there are 5 to 30 domains having an area of the Voronoi polygon of at least 160,000 nm<sup>2</sup> which comes into contact with the external circumference of said toner.

10. The electrostatic image developing toner of claim 1, wherein the domains comprises have different luminance.

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11. The electrostatic image developing toner of claim 1, wherein said resin forms the portion corresponding to non-domain portion around said domain, and in addition said domains are comprised of domains comprised of said crystalline material and domains comprised of said colorant.

12. The electrostatic image developing toner of claim 1, wherein the ratio of toner particles without corners is at least 50 percent by number and the number variation coefficient in the number particle size distribution is 27 percent or less.

13. The electrostatic image developing of claim 1, wherein the ratio of toner particles, having a shape factor in the range of 1.2 to 1.6, is at least 65 percent by number, and the number variation coefficient in the number particle size distribution is 27 percent or less.

14. The electrostatic image developing of claim 1, wherein sum M of relative frequency m<sub>1</sub> and m<sub>2</sub> of toner particles is at least 70 percent, which is included in the most frequent class in the histogram which shows the particle size distribution based on the number of particles which is drawn

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in such a manner that regarding said toner, when the particle diameter of toner particles is represented by D in  $\mu\text{m}$ , natural logarithm  $\ln D$  is taken as the abscissa, and said abscissa is divided into a plurality of classes at an interval of 0.23.

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15. The electrostatic image developing toner of claim 1, wherein said toner has a number average particle diameter of 3 to 9  $\mu\text{m}$ .

16. The electrostatic image developing toner of claim 1, wherein said toner is prepared by polymerizing at least a polymerizable monomer in a water-based medium.

17. The electrostatic image developing toner of claim 1, wherein said toner is prepared by aggregating and fusing at least resinous particles in a water-based medium.

18. The electrostatic image developing toner of claim 1, wherein said toner is prepared by salting out/fusing colorant particles and fine composite resinous particles which have been formed through a process to polymerize a polymerizable

monomer after dissolving a crystalline material in at least said polymerizable monomer.

19. The electrostatic image developing of claim 1, wherein said toner is prepared by salting out/fusing colorant particles and fine composite resinous particles prepared by a multi-step polymerization method.

20. The electrostatic image developing of claim 1, wherein said toner is prepared by forming a resinous layer which is prepared by fusing resinous particles employing a salting-out/fusion method on resinous and colored particles.